MEDIUM CAPACITY TRUCK IS DEMAND FOR CONTRACTORS

Necessity of Moving Building Material Quickly Is Realized and Hoist Type of Dump Bodies Fill the Need.

Homeless Americans—thousands of them in nearly every part of this country are walking the streets, eagerly watching for a vacant house of even a few rooms in which they may live. As a result of this condition we are witnessing one of the most staggering building programs in the history of this country—a program that is compelling the contractors to use every known device that makes for efficiency in building and one in which the motor truck looms up as the greatest aid in the transportation of this vast volume of building materials.

The homeless in their mad desire to get a home, or a room, are resorting to every known method that will bring results. They are bribing rental agents and offering fabulous rents for any kind of a dwelling that affords shelter.

The appeal of these homeless people is becoming almost as pathetic as those in the war torn countries. The seriousness of this problem can easily be visualized when we see people living in tents, houseboats, and practically every imaginable shanty that affords shelter from the sun and rain.

This condition requires the immediate erection of thousands of homes and buildings. To do this, and effectively meet the on-rush if building progress, it is no longer safe for the contractors to rely upon the horse-drawn vehicle for their delivery of materials, for blaming the delays on old methods is not a very acceptable excuse when the men who let out these contracts know that a fleet of good motor trucks will fulfill this demand for quick deliveries day after day.

If more homes and buildings must be built each day, the excavating must be carried out faster—more brick—more steel—more lumber and plaster must be delivered each day, otherwise this task will not be accomplished; but the contractor can overcome this situation by placing good, reliable motor trucks to work on his delivery equipment, instead of wasting time with the old methods.

Some of the most successful building contractors in the country have been farsighted enough to see this condition They have availed themselves of this more efficient delivery utility and now their motor trucks haul the steel, the brick, the tile, the cement, the lumber, and the plaster from which the homes, factories, office and buildings are fashioned. Look at their delivery equipment and you will find that it ranges from a light truck for small fixtures to the ponderous dump body type for the giant load.

Having decided that the motor truck is the logical servant to meet this bigger, quicker and more efficient delivery demand, the next problem is the selection of bodies that will be of the greatest value to the contractor. One of the Paige truck dealers who is in touch with all the building contractors in a large city, and makes a study of their needs, has this to say regarding the most servicable type of body for construction work:

"The contractors are making a big demand for 3½ ton trucks equipped with the hoist type dump bodies, as they are realizing that this type of body permits a much wider use in building construction work, because it is adapted to haul almost any kind of building materials."

MECHANICAL LOADERS PROVE MONEY-SAVERS

In selling motor trucks, dealers should impress upon the buyer the advantages of rapid loading devices, while vice versa the truck buyer should take pains to investigate the possibilities of saving money and time by speeding up his trucks and employes through the use of mechanical or electrical loading and unloading devices.

This is the advice of M. L. Pulcher, vice-president and general manager of the Federal Motor Truck company, Detroit.

"Every truck user must have thought, at one time or another, of the economies in time and money could be brought about by the use of mechanical or electrical loading and unloading appliances, which will either enable the driver of the truck to do all the loading with a minimum of effort and in the quickest time, or at least reduce the size of the shipping gang.

"Perhaps an owner has already figured out that, with more efficient methods or hauling devices at the loading or unloading stations, the truck could almost double up on the number of trips per day, depending of course, on the distance and how unwieldy the packages really were.

"There are appliances which will save the truck owner labor time and truck time. One device I have in mind is the link belt affair which uses a small motor and is of especial utility in coal yards. Pushed up against a coal pile and with a man shoveling coal toward it, it will feed its endless chain of coal containers into the pile and load the coal truck at a rapid rate—as low, I think, as ten minutes for an eight-yard truck.

"There are also devices which can pick up huge wrought pipe and load 240 tons of this heavy material in a 10-hour day; overhead power hoists for interior loading; overhead monorail trolleys which handle commodities in large lots and deposit the loads directly on trucks; simple endless belt conveyors; spiral loading conveyors; and many others. One of the simplest arrangements for rapid loading at crowded loading platforms is the saw-toothed construction, enabling the driver to back up more trucks at a time in a better position than by the straight design."

NEBRASKA FIXES NEW MOTOR TRUCK RATES

An interesting experiment which may disclose significant facts in the operation of motor transportation lines has been undertaken in Eastern Nebraska by the Nebraska State Railway commission.

Acting under authority vested in them, the commision has placed truck operation on a road basis making classifications for various types of goods carried almost identical with the classifications maintained by the Western railways.

The rates provide for a motor truck schedule within a radius of 60 miles. Four classifications are provided for in these rates between points not within the same city or village in Eastern Nebraska. The minimum charge for first-class commodities is 15 cents per 100 pounds in addition to which a charge of one and a half cents is made for each mile—second class rates are 85 per cent on this figure—third class rates are 70 per cent and fourth class 60 per cent. The minimum charge is 50 cents.

One of the first difficulties which the commission had in its plans for classifying transportation of this character was in ascertaining the cost of truck service over dirt highways with that degree of definiteness obtainable in railroad transportation.

Initial classifications were arrived at by taking the operating costs of truck drivers and working from them to a rate which would give a reasonable profit.

The experiment was particularly interesting in view of the fact that it now seems probable the national highway system will be constructed which will afford a uniform road bed for interstate traffic of the same character as that now undertaken on purely local routes. It is interesting to note that the Douglas County Highway Transportation committee of Nebraska instigated the action by the state commission.

Initial operating costs estimated on a basis of one truck for the road of 4,000 pounds driven 50 miles per day were as follows:

	Cents per Ton-Mile
Operating—	
Gas and oil	2.5
Chauffeur's wages	7.2
Maintenance—	
Running repairs	2.5
Depreciation	4.16
Repair of tires, etc.	1.87
General—	
Salaries, rent, etc.	3.00
Insurance	0.5
Loss and damage	0.8
Taxes	0.027
Return on investment	2.5
Total	25.057

The rate for gas is fixed at 25 cents a gallon and oil at 75 cents a gallon. Chauffeur's wages are based on an estimate of $24 a week and $2 a day expense allowance. Depreciation was fixed on a scale of 3,600 miles for the average truck. Tires were given an average life of 7,500 miles. Taxes were based on an actual value of $1,200 per ton for the first year of the truck's life, $800 per ton the second year and $400 per ton the third year. Returns were figured at the rate of 20 per cent on the investment.

EXPERTS SHOULD DIRECT HIGHWAY CONSTRUCTION

"With hundreds of millions of dollars available for road construction and other millions of dollars worth of motor equipment made available to the state highways department through the disposition of the surplus equipment of the war department to them, the time has come when we should look about us and see what we are doing to provide for an intelligent direction of this great effort," said Royal N. Scott, member of the highways committee of the national automobile chamber of commerce.

"It has been pointed out," continued Mr. Scott, "that some 10,000 college-trained men will be needed for that part of our program which refers chiefly to federal aid work. In addition to this, we have to consider the needs of 3,000 county forces and of a large number of municipalities ranging from towns of 3,000 inhabitants to our largest cities.

"Obviously this question is one which requires administration of a high order if we are to have intelligent expenditure of these funds. One of the troubles with the road movements in the United States in the past has been that we have been inclined to look upon it too much as a matter for ordinary hand labor.

"Those who have had much to do with highways know that the highway engineer must be as much of a trained man as any other engineer. He must be able to locate roads properly, must know all about material which is to go under the roads, must be something of a financier in order to maintain equilibrium between his construction, administration, operation and maintenance accounts, and in short, he must be a man of well-rounded-out education.

"In the future he may even come to be known as a highway economist rather than simply as a highway engineer since two of the most vital problems which confront us are those of location with regard to economic usage and study of the character and quantity and volume of traffice which will be generated by the improvement of the highways.

In order to provide men of this character, it would be necessary for most of our universities to round out their courses very considerably. Further to assure them of sufficient interest on the part of their students to make such courses worth while, one of the steps which we should take is to raise highway engineering to the dignity which should belong to it by making the salaries commensurate with the effort which the man will have to make to obtain it.

"The more quickly we come to a point of paying large enough salaries to attract the best men, the more quickly will we cut down the large losses which invariably result when unskilled men attempt to handle scientific problems such as those involved in highway construction.

"Under the provisions of the Townsend measure now before congress, the federal highway commission which will be placed in charge of a national highway system will be required to make a thorough study into the principles governing transportation, and it is my hope that in applying these principles they will seek to have our colleges take an active interest in the problem."

CONSUMER PAYING FOR BAD HIGHWAYS IN COSTS OF FOODS

Total of World's Supply of Farm Produce Sold Is Lessened Because of Impassable Roads.

"Work and vote for good roads," urges L. L. Heidacher, of the Firestone Ship-by-Truck Bureau. "It costs something to get them; it will cost incalculably more to do without them.

"Someone must pay for bad roads," said Mr. Heidacher yesterday to a group of truck owners assembled at his headquarters. "Someone is footing the bill now for the long detours made necessary by impassable stretches of so-called highway; for the extra time, gasoline, oil and repairs involved in lengthened trips; for damaged freight, rotting fruit and delayed food; and that somebody is the ultimate consumer. In other words, you and I are the sufferers.

"Of late, however, things have begun to move. As you possibly know, the United States government has set aside $574,000,000 to be used in the next three years, provided the states raise dollar for dollar. And the states are certainly doing their part.

Highways Benefited.

"So far at least $235,000,000 has been accounted for, and that sum is available for improvements in 1919. During the month of April alone the secretary of agriculture approved 120 distinct good roads projects, 55 of which were executed. This brought the total number of such undertakings in the United States to 1,057.

"I have referred to the larger aspects of the question, but the most encouraging sign of all is the springing up everywhere of smaller enterprises—a few miles here, a few miles there—webbing good roads already in existence into a vast network of splendid long motor routes; and these enterprises are innumerable.

"One of the best examples is the stretch between Cleveland and Akron. Over this 45-mile reach in Northern Ohio, about 4,000 tons of freight pass in motor trucks in every 24 hours. In Central Kansas the traffic in a certain locality has been so heavy that trucks have been equipped with flanges which enable the vehicles to run on railroad tracks. To make it possible for such progress to continue, we must build, and build fast, so that our highways may not become crowded as our railways did.

Operates Bureau.

"Just now the Firestone Tire & Rubber company, which has sponsored the cause of better highways for years, is performing a most important service in connection with highway development. A bureau of information has been established at every branch of the organization where reliable information may be obtained as to motor express routes leading in every direction. Truck owners may register their names and the capacity of their trucks in order that shippers may know just what facilities are to be had in every part of the country. These ship-by-truck bureaus are growing in popularity every day as they grow in usefulness, and every shipper and truck owner is cordially invited to take advantage of them."

ENLARGED PAIGE PLANT TO DOUBLE ITS OUTPUT

An army of workmen is engaged at the Paige-Detroit plant installing machinery and otherwise busy in bringing to completion new manufacturing facilities planned some time ago to meet the ever-growing demand for Paige cars.

"The enlarged plant, which will shortly be ready, will give us more than 15 acres of floor space," says President Harry M. Jewett. "We are installing every labor-saving device known to modern shop practice and with this new equipment and the added floor space we will have a plant that can take its place among the giants of the industry.

"We figure that these new facilities will enable us to double our production. We need this greatly increased output, for in spite of constant additions to the factory and increased production scheduled, each year has found the demand for Paige cars greater than we could supply.

"When much larger production is demanded it is no less a problem to maintain quality than it is to turn out the cars in the required numbers; but with the increased facilities of all kinds that we shall have we are confident of achieving both goals. At present we are well under way on a very large schedule and speeding up as fast as possible to meet the immediate demand."

HERE IS HOW CORD TIRES ARE EVOLVED

Just what is a cord tire and why are cord tires so superior to fabric tires that tires of cord construction are slowly but surely showing fabric tires out of public favor?

These are questions, says the United States Tire company, that are of interest to every tire-user who cares anything about the cost of his tires. The automobilist who wants his tires to give him the most miles for the fewest dollars is interested in knowing what a cord tire is and why the cord tire construction may be expected to give far better service than a fabric tire.

The intelligent motorist is interested in knowing why it is that if a car rolls down a hill under its own momentum, it will go many feet farther if equipped with cord tires than on fabric tires. He is interested in knowing why a journey on cord tires is more comfortable than on other tires, and why the cord tires are less likely to skid than those of the fabric construction.

When the average motorist thinks of a tire he usually thinks of rubber, and rubber only. When he looks at a tire all he sees is rubber, and it is natural for him to assume that on the quality and durability of the rubber depends the strength of the tire. But deep in the heart of the tire is a carcass built up, layer upon layer, of tough cotton, and it is on the strength of this inner carcass of cotton that the tire must rely for its real strength.

In making a cord tire, each of the cords is thoroughly impregnated with rubber, and each is insulated with rubber, so that there is no direct contact of any cord with its neighbors. Layer after layer of these cords is built up, each layer being placed at such an angle with the layers above and beneath that when all are welded together in the vulcanizer, they make a solid piece which it is impossible to pull or twist apart.

A very interesting feature connected with the use of cord tires is that they require on an average of five pounds less air pressure than fabric tires. This lower pressure makes them softer and much more comfortable to ride on.

In the so-called fabric tires this carcass is made up of layers of closely-woven cotton fabric. The threads which go into this fabric are tough and stout and make a fabric which is so strong that the casual observer would be justified in believing that it could not be improved upon as a material out of which to construct the tire foundation.

Cord construction does away with the cross threads in the construction of a tire. When a Royal Cord tire is built, one layer after another of cords is built into the carcass. In each layer the cords lie side by side and run in the same direction. The layer looks exactly as a piece of cross-woven fabric would look if it had no cross threads. Each of the cords is about as thick and fully as strong as a stout piece of fish cord.

ROAD BUILDERS URGE MOTOR TRUCK LAWS

Motor truck owners and users will be interested in the resolution as adopted at the recent conference in New York of the American Road Builders' association, favoring the following resolutions for motor trucks on highways:

The gross weight of vehicles and load shall not exceed 28,000 pounds on four wheels.

The total height shall not exceed 12 fet 2 inches.

The total width shall not exceed 8 feet.

The total length shall not exceed 28 feet.

The total weight per inch width of tire (measured at the base of rubber) shall not exceed 800 pounds.

The speed of motor trucks and trailers entirely equipped with solid rubber tire shall not exceed 15 miles per hour.

The secretary was directed to forward copies of the resolution to the governors, state legislatures and the state highway commissioners.

Army Truck Convoy For Better Highways

"Much good will come to the movement for national highways through the army motor truck tour now being made across the country by two units of the motor corps," said Windsor T. White, vice-president of the commercial vehicle division of the national automobile chamber of commerce recently.

"A few years ago the effort of a single passenger car to cross this continent was considered extraordinary. During the war the need of an effective agency of transportation to supplement railroads called particular attention to the fact that better highways are necessary from a military as well as a commercial standpoint.

"The present trip of the army men across the continent will furnish us with a valuable set of information regarding road conditions and operating cost and other factors which enter into highway transportation including the need of trained corps of operators.

"How important a factor the truck is in modern usage was indicated by Secretary of War Baker in his speech made in Washington on the morning of the departure of the convoy for San Francisco.

"After reviewing the vital part which the motor truck had played in the war, turning it from a question of static conflict to one of motion at one of the most critical moments, Secretary Baker passed on to a discussion of our highway needs in this country as a means for permitting the efficient operation of highway transportation.

"These needs will be clearly brought out not only from a military but from a commercial standpoint by the present tour, which, while it is traveling over the best transcontinental roads we now have, will still follow many stretches of slow and tedious if not dangerous going.

"Out of this will come strongly crystallized sentiment for a national highway system as one of the things necessary to the welfare of the people of this country.

"The tour will be watched with keen interest throughout the United States."